CALIFORNIA

ADMINISTRATIVE
OFFICE OF THE
COURTS

Electronic Filing Technical Standards Project

Proposed Technical Standards

Revision History
Version 1, released November 1, 2000
Version 2, released November 2, 2000
Version 3, released November 3, 2000
Version 4, released November 13, 2000
Version 5, released November 20, 2000

CEFTS

Contents

Revision History

Version 1 Initial and partial outline of proposed standards topics for purposes of internal discussions only.

Version 2 Minor revisions following internal review.

Version 3 Conceptual Model section enhanced. Prepared for distribution.

Version 4 Title revised from "Proposed Topics for Technical Standards" following review at CEFTS/2 conference.

In *Conceptual Model*, an explanation of the diagram depicting a two-court, two-EFSP scenario was added.

In the *Forward* to the *Proposed Technical Specifications*, the following topics were added:

- Public Access;
- Criminal Cases;
- Minimum Infrastructure Standards for Courts.

In *Transmission Envelope*, the compliance deadline for both new and existing electronic filing projects is set at January 1, 2002.

In *Court URL Directory*, discussions regarding security considerations and alternative directories were added.

In Document Formats, CCITT Group 4 compliance was added for TIF files, specification compliance was moved to January 2002, and discussion regarding maximum document sizes was added.

In *Electronic Signatures and Encryption*, discussion regarding policy issues affecting the identification of filers for purposes of filing or retrieving case data was added.

In *Case Management System API*, discussion of EFM integration with CMS applications and the consequent need for an API was added.

In *Court-Initiated Transactions*, discussion regarding policy issues and notice was added.

In *Electronic Service and Notice*, changes were made to more clearly differentiate service from notice processes, and to restrict service roles to conventional practice.

In *Payment Mechanisms*, discussion regarding reconciliation, payment corrections, and frequency of payments was added.

In *Communication Protocols*, discussions of alternatives to HTTPS, certificate authorities, and waivers were added.

In *Policy Management*, the specification was extended to require that Court Policy XML be accessible only via a request to the EFM application, and the possibility of retrieving canonical lists for data mapping added.

In *Code Sets and Translations*, a vendor-led effort was added as an alternative source for defining the canonical lists of tables and codes.

In *Recommendations for Rules of Court*, *Certification of Compliance with Standards* was retitled *Enforcement of Standards*, and the topics of *Registration of EFPSs* and *Periodic Revision of Technical Standards* added.

Version 5 Minor revisions following internal review. Released for comment.

Introduction

The road to electronic court filing has been circuitous one, with many false starts. Here in California we have elected to join in a nationwide standards setting effort, and adopted an approach of consultation and consensus among the parties who can make electronic filing happen: courts, electronic filing service providers, case management system vendors, and other providers. In May of this year the AOC held the first CEFTS conference in Sacramento, at which we proposed a conceptual model emphasizing standards and private sector involvement, and at which the views of courts and providers were solicited.[1] The proposed approach met with strong support, and we have since moved forward accordingly, in dialog with courts and providers, by participating in the activities of the standard-setting Legal XML organization.

Progress has been made in defining a standard for an "electronic court filing envelope" expressed in XML, with refinements and new specifications underway. We are presently in the phase of initial implementations of the Legal XML Court Filing version 1 proposed standard, and the Legal XML organization's Court Filing Workgroup is drafting requirements for the next version of its specification. The Court Filing specifications are, however, just one element of the universe of technical matters that must be addressed in order to truly bring electronic filing to the courts. The CEFTS/2 conference, held in San Francisco on November 9th and 10th of this year, was an opportunity for courts, CMS vendors, and software providers to discuss where we are, critique proposals for new standards, identify any "missing links", and express an opinion on where we go from here. This document was a primary focus of discussion at the CEFTS/2 conference, and this version reflects the outcome of those discussions.[2]

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[1] For presentations and transcripts from the CEFTS/1 conference see http://www.legalxml.org/california.

[2] For CEFTS/2 conference presentations, attendees, and related materials see http://www.legalxml.org/california#CEFTS2.

Toward National Technical Standards

At the time this document was drafted the Joint Technology Committee of COSCA/NACM was proposing a project with NCSC to establish technical standards for electronic filing. That prospective project is evidence that others have recognized the need for electronic filing technical standards such as those proposed here. Should that project be funded by SJI, we shall contribute what we have developed here in a collaborative effort to develop national standards that include the perceived needs of California.

Background

The prospect of electronic filing of court documents has achieved general acceptance within the judicial and legal communities. On a limited basis the concept has even been translated into practice in a few trial court initiatives, and more are in the planning stages. However, recognizing that independent and usually incompatible approaches developed by or for California's 58 trial courts were unlikely to result in a foundation suitable for universal statewide electronic filing transactions, the Legislature in 1999 directed the Judicial Council to promulgate uniform rules for electronic filing.

> *"...by January 1, 2003, the Judicial Council shall adopt uniform rules for the electronic filing and service of documents in the trial courts of the state, which shall include statewide policies on vendor contracts, privacy, and access to public records."*
>
> *California Code of Civil Procedure section 1010.6*

Since January 2000 the California AOC's California Electronic Filing Technical Standards (CEFTS) project has been engaged in the process of identifying standards for the electronic filing of court documents in keeping with this directive. In executing its assignment the CEFTS group works with: the Electronic Filing Working Group (EFWG); several trial courts in early stages of electronic filing pilot projects; and Legal XML (www.legalxml.org), a national organization engaged in the definition of electronic filing standards based on Extensible Markup Language (XML). In working directly within Legal XML (www.legalxml.org/california) we recognize that electronic filing ideally transcends state and jurisdictional borders, that participation in an international forum leverages intellectual capital and accelerates our own program, and that the products delivered by the Legal XML organization can

serve as a basis for California's effort. To meet its objectives and those of the legislation, recommendations must be developed and published by calendar year end 2000.

E-Filing Assumptions

To this point, the EFWG and CEFTS have accepted the following assumptions pertaining to statewide electronic filing:

- there is a large and heterogeneous population of case management systems;
- attorneys typically work in more than one jurisdiction;
- electronic filing users should be presented with a consistent look and feel;
- courts lack resources to provide technical support for attorneys or the public and are otherwise resource constrained;
- there should be only one electronic filing interface per case management system;
- there must be bi-directional exchange of data between case management and electronic filing systems;
- there must not be monopolies for electronic filing services, either statewide nor within a jurisdiction.

Obstacles

There are numerous factors inherent in California's trial courts, and in the courts of many states, that taken together form an effective barrier to a natural and speedy evolution of electronic filing.

- Court Autonomy. California's trial courts are autonomous, and until recently have not looked beyond their local regions in planning or undertaking technology projects. Yet the business of the legal community is typically multi-jurisdictional, and it is unlikely that 58 different mechanisms for electronic filing would find a great deal of acceptance by the large number of attorneys who find themselves practicing in more than a single county.[3]
- Privacy and Access Issues. The courts have found issues involving privacy and electronic access to court records to be extremely sensitive,

[3] See www.legalxml.org/california/#MultiJurisdictionalFiling for more on this subject.

and despite substantial efforts to address and resolve them, have yet to develop concrete uniform policies. The ready search and distribution possibilities afforded by electronic filing raises questions of if and how access to court records should be restricted. Consequently each electronic filing project risks devolving into an endless debate over privacy and access policies.[4]

- Infrastructure. The benefits of electronic filing for the private sector, presumably primarily attorneys, perhaps their clients, and even citizens who take recourse to the courts on their own behalf, might be obvious: generally, one would conclude that the wheels of justice will turn somewhat faster and perhaps less expensively when business can be conducted electronically. For the courts, however, it's a different story at the moment. Electronic filing generally won't benefit a court unless the court has the technological infrastructure to capitalize on the digital advantage. Unless electronic filing systems can to some extent talk with case management systems, and unless recourse to paper can be avoided within the courthouse, electronic filing offers few if any real benefits for a court. Without a suitable infrastructure, then, electronic filing is little different from using a fax machine, and fax filings haven't exceeded anyone's expectations since they were authorized in California nearly a decade ago.

Consequently, we see a need to set a path for statewide electronic filing, and that path involves standards and cooperation between the courts and private sector ventures.

Success Factors

The critical success factors influencing the course of the CEFTS project have been established as including the following elements.

- Vendors: a general consensus among vendors active in California as to the basis of technical standards is a critical success factor. In this context vendors include, but are not restricted to, providers of court case management systems, imaging products, data inquiry services, or other electronic services to trial courts.

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[4] See www.courtinfo.ca.gov/rules/2000/appendix/divistandard-83.htm#P2724_242455 for Standards of Judicial Administration Section 37 rules governing electronic filing in California, and www.courtinfo.ca.gov/rules/2000/appendix/divistandard-84.htm#P2771_24606 for Standards of Judicial Administration Section 38 rules governing privacy and access issues. A new privacy and access rule is presently being drafted.

- Trial Court IT Interests: a general consensus among IT Directors of California trial courts as to the basis of technical standards and policy guidelines are critical success factors. In this context this group is defined as including those courts that voluntarily and substantially participate in the standards definition process.
- National Interests: general consistency with applicable national standards is a critical success factor. In this context national interests include US Federal Courts, NIST, W3C, Legal XML, NCSC, COSCA, NACM, JTC and any other clearly identifiable body active in the domain.
- Technical Viability: technical standards must be sufficiently flexible to accommodate potentially all types of court filings, not so complex as to make their implementation in products unlikely, and based on technologies that are commercially available. In this context offerings by any vendor of a product or service compliant with the standards shall indicate success.
- Market Acceptance: the project should ultimately result in a competitive environment for products or services that can be readily assimilated by both courts, legal practitioners, and the public. In this context offerings by more than one vendor of interoperable products or services compliant with the standards shall indicate success.

Other success factors include:

- Trial Court Judicial and Executive Officers: cognizance of the interests of bench officers and court executive officers;
- Bar Associations: cognizance of the interests of the State and local bar associations;
- Press: cognizance of the interests of the press;
- Pro Pers: cognizance of the interests of those who chose to represent themselves in judicial proceedings;
- Administrative Office of the Courts: the conduct and products of the project must enjoy the confidence and backing of the California Administrative Office of the Courts;

- Court Technology Advisory Committee: the project must enjoy the confidence and backing of the Judicial Council's Court Technology Advisory Committee.

Alternatives Considered

Given the above, CEFTS and the California AOC has specifically rejected the following alternatives for addressing standards issues:

- select an existing commercial product;
- develop an electronic filing product in-house, or commission development of such a product;
- develop or commission development of a standard by fiat.

These approaches were considered unlikely or unable to satisfy the critical success factors identified above, and consequently the following alternatives were considered:

- conduct a vendor-centric effort to define standards;
- conduct a user-centric effort to define standards;
- adopt the standards developed by another state or federal court.

The approach adopted by this project is a synthesis of these alternatives, and this document and the CEFTS/2 conference are products of that approach.

Conceptual Model

The California electronic filing technical standards effort adopts a conceptual model as depicted in Figure 1 below.

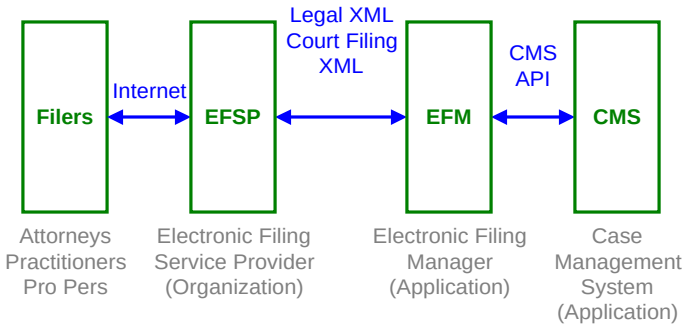

FIGURE 1

This model defines four primary elements of a future environment for statewide (and perhaps nationwide) electronic filing.

- **Filers**. Attorneys, law firms, litigants, and anyone else who has cause to file documents with a court.
- **Electronic Filing Service Providers (EFSPs)**.[5] These are business entities that provide electronic filing services and support to their customers (filers). They provide a means for filers to submit documents to courts, electronically forward those filings to courts, and direct responses from courts back to the respective filers. We assume many providers will develop applications for electronic filing, given the advent of open standards and a level playing field with universal electronic access to courts. They will offer a range of services and products designed to attract specific segments of the market, ranging from large to small law firms, solo practitioners, pro pers, and anyone else who wishes to file court documents. There is no restriction as to the organizational form of

[5] Legal XML documents also refer to an entity known as an "EFP" (Electronic Filing Provider), which is an application for submitting electronic filings to EFM applications. In our model, such an application can exist either with the Filer or with the EFSP (or both, depending on its design).

an EFSP: in most cases it will be a private sector firm, but it could also be a non-profit organization or even a court.

- **Electronic Filing Manager (EFM).** This is a software application that accepts XML from an EFSP, parses it, passes data to the CMS, saves documents if the CMS is not itself equipped to do so, and returns XML-formatted CMS-generated data to the EFSP. To the extent that the XML is standardized statewide, any EFSP should be able to interact with any EFM, and therefore with any court CMS interfaced to an EFM application.
- **Case Management Systems (CMSs).** These are the applications courts use to track and manage caseloads. We accept as a given a heterogeneous CMS environment. In California there are 58 counties, each with one and typically more CMSs, and with no two configured alike. So that EFMs can be readily connected to CMSs, case management systems will need to support an API (Application Program Interface) designed to talk with EFM applications. Developing an API is a job for CMS vendors or court software developers or their contractors. It is also possible that, over time, various vendors will embed the EFM function in their CMS products.

The fundamental objective of this document is to establish technical specifications that enable a competitive environment for EFSPs and other electronic filing software application providers. Equally important, these specifications must establish a manageable technical and business environment for courts. Further, they must satisfy the condition of being both **necessary** and **sufficient** to the establishment of such an environment: technical standards that exceed that condition risk stifling innovation or introducing unnecessary complexity. When fleshed out with appropriate technical specifications (as suggested here) and conformant software applications, the conceptual model will yield an electronic filing environment similar to that depicted in Figure 2.

Figure 2 shows a depiction of the conceptual model of Figure 1 for two courts and two-EFSPs. By way of explanation, end users ("Filers": attorneys, pro pers, etc.) subscribe to or otherwise decide to use the services of either EFSP according to whatever is important to them: the cost of service, the nature of services offered, reliability, reputation, software ease of use, or whatever. Any EFSP can transmit filings to any court equipped to handle

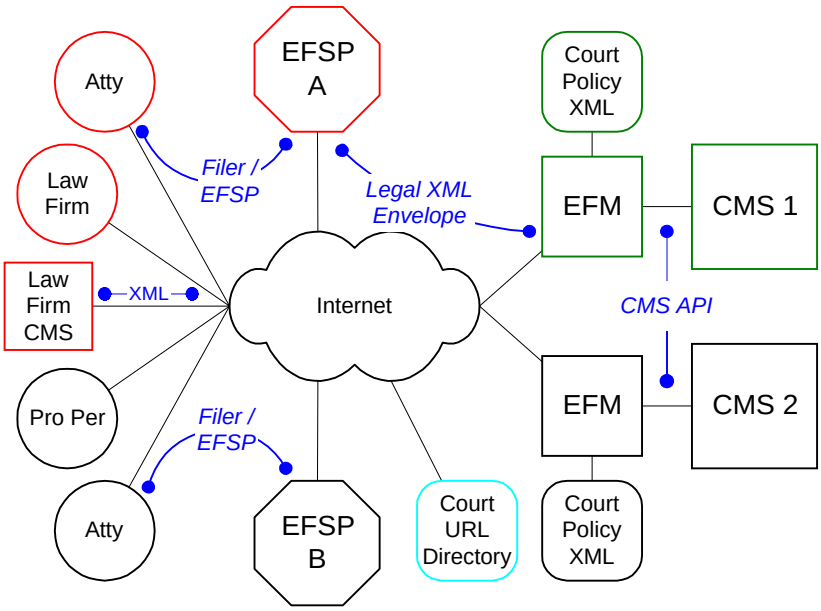

FIGURE 2

electronic filings compliant with the standards proposed here. The court's EFM application extracts the filed document(s) from the XML envelope in which it was sent, interacts with the case management system to give it data, and with the document management system to store the document(s) (not shown). The case management system then sends an acknowledgement of filing back through the EFM to the EFSP and thence to the originating filer. Since the acknowledgement itself is in XML, it could be automatically processed by a law firm's case management system. This is a simplified description of some of the events and components involved in an electronic filing transaction; in practice they may vary to some extent for a given court or EFSP.

Proposed Technical Specifications

Forward

The objective of this section is to enumerate areas for specifications likely to be necessary and sufficient for establishing a viable electronic filing environment consistent with the conceptual model described above. That is, we endeavor to state the technical rules by which EFSPs will interact with courts and vice versa.

EFSP Actors

The term EFSP as used here usually refers to a private sector entity providing electronic filing services to end users such as attorneys, law firms, or the public. However, nothing precludes a court from acting in the capacity of an EFSP, and indeed, several courts already do so in California. Because of the resources this role requires of courts, though, CEFTS does not encourage courts to act as EFSPs.

Specifications and Standards

A "specification" as used here refers to a set of guidelines and/or protocols as proposed by CEFTS on behalf of the California AOC. A specification may be revised from time to time, and is essentially a recommendation to courts and providers until two interoperable instances of products or services are deployed, at which time a specification transitions into a "standard". To encourage and enforce the standards-setting process, the AOC may use specifications and standards as criteria in making budget and funding decisions.

Of Documents and Envelopes

When referring to a "document", we mean the electronic equivalent of the pleading, Judicial Council approved form, exhibit, or other item a filer might send to a court, in whatever format – PDF, "blob", XML, or whatever else the court will accept. This is distinguished from the W3C use of the term, which in our context would pertain to the XML envelope surrounding and including the document: for clarity, we will use the term "XML envelope" for that purpose. It follows then that the Legal XML Court Filing Specification describes an XML envelope.

Public Access

Because these specifications include mechanisms for accessing data residing in court CMSs, the issue of public access often arises. This document does not address public access as it is defined in Standard of Judicial Administration 38.[6] That rule, and its expected successor, pertain to anyone who *is not* a party to a case. In this document we propose specifications allowing access to court records for attorneys and people who *are* parties to an action. Such parties are exempted from the restrictions imposed by privacy and access rules (also see *Interaction With Court Databases* on page 21).

It is our expectation that CMSs will generally be enhanced to provide rules-compliant access to court records (and typically presenting data using HTML). Such an interface is not shown in Figures 1 or 2 of the section describing the *Conceptual Model*.

Criminal Cases

Much of the discussion and examples provided in this document are readily understood within the context of civil and other non-criminal case types. It should also be understood that the conceptual model and these specifications apply to electronic filing for criminal cases as well. The EFM application should serve as the universal portal into a court's CMS for all case types, and filings from a District Attorney or Public Defender should use the same XML envelope used for all other types of filings (indeed, this is the focus of the Integrated Justice Workgroup of Legal XML). In fact, the specifications will allow vendors and developers to integrate the electronic filing function (the EFP application) directly into the specialized case management systems used in DA and Defenders' offices, providing a nearly seamless interface to the court. In such instances one might think of the DA as an EFSP, or it is possible independent EFSPs offering value added services will arise for that specific market.

Minimum Infrastructure Standards for Courts

The prospect of establishing minimum requirements for the technical infrastructure of courts wishing to implement electronic filing was raised at the CEFTS/2 conference, with the intended purpose of simplifying the implementation process and ensuring a minimum level of performance to EFSPs and filers. The concept was not adopted, however, with the reasoning that (1) the rapid evolution of technology would require frequent

[6] See www.courtinfo.ca.gov/rules/2000/appendix/divistandard-84.htm#P2771_24606.

reexamination and alteration of the specification, (2) an IT budgeting mechanism already in place with the AOC could be used for establishing minimum capabilities, (3) capacity specifications would necessarily be a function of court size, potentially complex, and grounded on guesses rather than experience, and (4) real world experience from San Francisco Superior Court had shown that potential bandwidth bottlenecks or storage capacity constraints were easily avoided.

EFM Deployment

Purpose The purpose of this specification is to establish the basis upon which courts will implement electronic filing interfaces (EFM applications) to their respective case management systems. The general objectives to be satisfied are:

- Minimize software environment complexity by minimizing the number of applications interfaced to court CMSs;
- Minimize burden on court IT support staffs;
- Simplify the activity for EFSPs of interfacing to court CMSs.

Proposal Courts complying with this specification will implement a single EFM application interfaced to each CMS enabled for electronic filing. The EFM software will at minimum be compliant with the specifications for *Transmission Envelope* and *Communication Protocols*.

Force Recommendation.

A court may, at its discretion, implement multiple EFM applications for a single CMS, though that approach is strongly discouraged. It may also implement a different EFM product for each CMS it operates.

Compliance, Timeframes It is intended that EFM applications will be certified for conformance to standards and for the performance of established functional capabilities[7]. This is intended to aid courts in selecting EFM solutions, and in assisting EFSPs when planning or implementing electronic filing services with individual courts. The EFM certification process is also addressed in *Compliance and Certification* on page 32.

Discussion This specification simply sets the practice of one EFM per CMS. As noted, this approach should minimize the effort required of already over-taxed court IT staff during implementation and support phases.

This specification does not mean to suggest that a single EFM instance could not serve more than one CMS, or that the EFM function itself must be owned

or operated by the court, or that the EFM function cannot be integral to the CMS application. Any solution that simplifies complexity and the burden on court IT staff is acceptable under this recommendation. What is generally not acceptable is multiple EFM implementations per CMS, each supporting a different EFSP or case type.

Transmission Envelope

Purpose This specification deals with the structure of transmissions received by courts, specifically the court EFM. The general objective of this specification is to allow universal access by any EFSP to any EFM at any court for purposes of electronic filing.

Proposal Courts will accept transmissions structured in compliance with Legal XML Court Filing specifications ("XML envelopes" as defined above) as adopted by the Joint Technology Committee of COSCA/NACM. Courts will minimally accept filings compliant with the two most recent versions of the specification. Transmissions compliant with older versions of the specification may be accepted at the discretion of individual courts.

Force Required, no exceptions.

Compliance, Timeframes Commencing January 2002 all electronic filing projects would be expected to comply with this specification. In general, a grace period of one year following release by the Legal XML organization should be expected before implementation of a new version of Court Filing specification is required.

Discussion This specification essentially establishes a common basis for the exchange of electronic filing transmissions, or XML envelopes, with California courts. Note that it does not speak to the format of the documents to be filed that are contained inside the XML envelope (in the *DocumentContent* element – that is addressed in *Document Formats* on page 16). It simply specifies that all transmissions shall use an envelope, and that the envelope will comply with the Court Filing specification from Legal XML. This specification enables the

[7] An Unofficial Note on Legal XML Certification is pending and will soon be posted at www.legalxml.org.

development of EFM applications capable of handling any type of filing at any court.

Court URL Directory

Purpose This specification will establish a directory for use by EFSPs in locating the URL's for court EFMs and Court Policy XML.

Proposal The AOC will host, or cause to be hosted, a directory of URL addresses for each court CMS equipped for electronic filing (that is, interfaced to an EFM application). The directory will also include a URL for each respective court's policy management parameters if necessary (see *Policy Management* on page 28). The directory will be expressed in XML.

Force Optional for EFSPs, required for courts.

Compliance, Timeframes Effective with the establishment of the directory. Courts would be obligated to inform the AOC as new electronic filing services are implemented so that the directory could be updated.

Discussion With some 200 or more case management systems in the state, this specification hopes to reduce the administrative tasks associated with discovering and maintaining the URL for each and every court's electronic filing service. In practice, at least for the early years of electronic filing, the contracting, implementation, and operational certification processes will likely be protracted and identification of the URLs in question will not be an issue. As EFM-equipped CMSs and EFSPs proliferate, though, and interoperability issues are resolved, the value of a common directory becomes more apparent.

CEFTS/2 Discussion The potential risk involved in placing such a directory on the Internet was raised at the CEFTS/2 conference. Attendees ultimately concluded that doing so would pose no additional security risk given that court EFMs, CMSs, and intranets would necessarily be protected by firewalls and related security measures.

The utility of this proposal was also discussed at CEFTS/2, and the prospect of using other established or emerging directories was raised after the conference. It was decided to retain the specification, and to explore

alternatives such as the Universal Description, Discovery, and Integration (UDDI) specification (see www.uddi.org) with the intent that a more universal alternative is preferable to a California-specific alternative.

Document Formats

Purpose This specification will establish file formats that are universally acceptable for documents filed electronically in any California trial court. The objectives we would hope to achieve with this specification are:

- Satisfaction of archival requirements;
- Inclusion of non-proprietary formats only;
- Formats that are readily usable by courts, or to which courts can reasonably adapt;
- Formats that can be readily generated by filers and/or EFSPs;
- Formats that have modest storage requirements.

Proposal Our preliminary position on document formats are that the following should be minimally acceptable:

1. PDF (Adobe's Portable document format, and also an NIST standard);
2. TIFF, an image file format, at a minimum resolution between 200 and 400 dpi and CCITT Group 4 compliant;
3. XML, in content models approved by the Judicial Council, and with an accompanying style sheet where the appearance of a document is a consideration.

From time to time additional formats satisfying the objectives noted above will likely be added to this list.

Force Required.

Compliance, Timeframes Commencing January, 2002 all new and existing electronic filing projects would be expected to comply with the PDF or TIFF elements of this specification. The XML option must of course await development of content

models and approval by the Judicial Council; as XML formats are approved, courts would have one year to prepare for accepting them.

Discussion The file type or "format" of electronically filed documents is at present a matter of discretion for individual courts, with PDF and TIFF file formats being among the more common for the early pilot programs. Even though final form presentation, or the fidelity, of PDF files is imperfect (that is, the exact appearance of a PDF document can vary from environment to environment), the imperfections seem to be tolerable. The fidelity of RTF documents seems to be even more problematic than PDF, which is why it is not included above; in it's favor though, RTF files are probably easier for filers to generate because most word processing applications are able to create RTF files.

Other formats, such as JPEG or GIF, video formats, sound file formats, and others could conceivably need to be accommodated to handle exhibits and other attachments allowed by the Legal XML Court Filing specification (i.e., in the *Attachment* element of the *LeadDocument* element). This raises the issue of the storage capacity required of some of these formats, and of course of the software applications required to view them. Practically, courts may be stretched if required to accept any file format, and one court's willingness or ability to accept another format may not be something a court of appeal or another trial court could accommodate should a change of venue, consolidation, or coordination occur. These considerations argue for the establishment of a small universe of formats initially.

With version 2 of the Legal XML Court Filing specification we anticipate the development of XML-formatted documents, and we hope some of the DTDs/Schemas that emerge will have national applicability and work in California. We also anticipate, however, that many of the forms used in California will need to be defined in XML specifically for California, and possibly using the W3C's XForms for markup (www.w3.org/MarkUp/Forms/). In such instances we anticipate that the process presently used by the Judicial Council for introducing and revising standard forms will be extended to include the XML equivalents of those documents.

CEFTS/2 Discussion The issue of setting a uniform statewide maximum limit on the size of electronically filed documents was raised at the CEFTS/2 conference. A parameter has already been proposed in Court Policy XML for this purpose, and it was argued that variation among individual California courts could be

cause for confusion among filers. Counter-arguments were made that: (1) conventional alternatives were always available for exceptionally large filings; (2) sunset provisions would be necessary for any established limit because of the rapid advance of technology; (3) any limit would necessarily be arbitrary; and (4) EFSPs could provide features that would address any inconvenience for filers caused by variations in document size limits. It was agreed that document size limits would not be instituted now, and would await reexamination in 2003.

Electronic Signatures and Encryption

This specification would address the means by which electronic documents are "signed" by submitters. By its establishment it endeavors to:

- Provide a reasonable degree of confidence as to the identity and legitimacy of the electronic filer;
- Require no more than existing court information technology infrastructure can readily support;
- Avoid discouraging potential electronic filers by requiring technology they do not have, or with which they are unfamiliar or uncertain.

Proposal The courts will rely upon EFSPs to authenticate the identity of their customers (filers); by virtue of accepting and transmitting a filing to a court the EFSP is certifying that the filer is who s/he claims to be and that the document is complete and unchanged from its original. Courts will not accept encrypted documents or acknowledge the validity of digital signatures.

Force Required.

Compliance, Timeframes This specification speaks largely to the business practices of EFSPs, who may (or may not) implement any kind of encryption or digital signature mechanisms they desire between themselves and their customers, at any time they so desire.

Discussion CCP 1010.6 addresses the signature issue for electronic documents by specifying that "…by the act of filing, that the declarant has signed the document," and distinguishes only between situations in which the penalty of perjury may pertain (in which instance the filer is obligated to retain the hand-

signed original document for presentation if demanded by the court or a party to the action). This specification is, then, consistent with existing California law.

Private/public key encryption/signature technologies exist at present that can ensure a document's authenticity, non-repudiation, integrity, and confidentiality if needed, but no de facto commercial product has yet emerged. The alternative of selecting and mandating one (or more) such products on a statewide basis at this juncture seems unnecessary given the legislature's intent with CCP 1010.6. It should also be noted that while the recently enacted federal Electronic Signatures in Global and National Commerce Act establishes a legal basis for electronic signatures, it takes a very neutral position with regard to technology and essentially leaves open the issue of what constitutes a digital signature.

At such time as digital signature technology becomes widely accepted the AOC may revise this specification. In the interim, the business arrangement of contractually requiring EFSPs to vouch for their customers provides a higher degree of certainty as to the identity of filers than do current paper-based practices. As noted above, EFSPs are free to implement any kind of digital signature technology they desire for use by their customers to safeguard that trust.

CEFTS/2 Discussion CEFTS/2 attendees heard considerable discussion regarding the potential policy implications of this specification. There is a paradox here: some argue that any attempt to rigorously authenticate filers could potentially be construed as a denial of access to justice; however, some of the information EFSPs can provide from court databases is privileged and can only be legitimately provided to those who are known to be parties (or attorneys representing parties) to a case (see *Public Access* on page 11). It would seem that the burden of proof could be higher for one kind of activity than for another, an issue that Judicial Council policy will ultimately need to address.

Case Management System API

Purpose This specification would establish a standard Application Program Interface (API) for EFM-to-CMS interaction. By its establishment it would:

- Simplify the normally complex undertaking of melding EFM applications to CMS applications;
- Give courts greater freedom of choice over the EFM and CMS applications they select;
- Accelerate the diffusion of electronic filing services among the courts.

Proposal A draft specification for an EFM-to-CMS API will be circulated among vendors and other interested software providers, with the intent of reaching a consensus on the specification. Once finalized, the API will become a requirement for CMS certification by the California AOC.

Force Required.

Compliance, Timeframes Circulation of a draft API specification by year end 2000, with finalized specification released by mid-year 2001. Compliance by CMS and EFM products expected within 1 year of specification release.

Discussion An API is a supported method by which an application exposes its functionality, allowing developers to create programs that integrate with that application.

The interfacing of EFM applications to CMS applications will generally be non-trivial undertakings, and in general we believe that the complexity of the task increases with the sophistication of the case management application. Very few CMS applications have formal APIs, and for the few that do licensing can be an issue. Certainly the time and cost of the work required to marry an EFM to a CMS can be substantially reduced if both applications are designed to a common mechanism for interacting, which this specification hopes to provide.

CEFTS/2 Discussion It was observed at CEFTS/2 that EFM functionality could eventually become integral to CMS products (this expectation was also originally noted in

EFM Deployment on page 13). If the EFM function becomes part of the CMS, then why is an API such as the one proposed here necessary? There are at least two good reasons: (1) at the risk of telling developers how best to do their jobs, developers would be well advised to define an interface and implement the EFM as an API; (2) the availability of a standardized API in a CMS gives courts the freedom to pick and choose alternative EFM products should they ever wish or need to do so.

Interaction With Court Databases

Purpose Filers and EFSPs send documents and data to courts, but they also need information from courts. This specification would establish how information is retrieved by EFSPs from court databases (CMSs). It objectives are to:

- Identify the queries that may be sent to courts;
- Identify the responses and data that may be received from courts;
- Establish how local restrictions or preferences will be conveyed.

Proposal The Query/Response mechanism being addressed in version 2 of the Legal XML Court Filing specification will be used for requesting and receiving information about cases. The specific queries and responses (in terms of generic data elements or errors) that can be returned will be enumerated. These will be reflected in the EFM-to-CMS API specification (see *Case Management System API* on page 19).

It will likely be a matter of local court discretion as to which of the defined queries and data elements they will support. These preferences will be expressed in XML under the Policy Management specification (see *Policy Management* on page 28).

Force Required.

Compliance, Timeframes Product compliance is expected within one year of release of a Query/Response specification by the Legal XML organization.

Discussion The Legal XML version 1 Court Filing specification has existing elements for Query and Response, but they are merely placeholders. It is understood that version 2 will address these elements, and it is possible that they will be DTDs/Schemas separate from the Court Filing DTD.

One of the concerns that normally arises when access to court records is discussed is the privacy and access issue. California has taken a first step in addressing this issue, and a new rule is expected shortly.[8] It should be noted, however, that these rules pertain to the general public, and not to attorneys or litigants in an action; for this latter group, fewer restrictions apply to the information can be made available electronically (presumably, any electronic court record is available, excluding of course the personal notes or preliminary memoranda and the like of bench officers). The advisory nature of the current rule allows variation in local public access implementations, and there will certainly be variation when the scope is national. The mechanism for handling local court preferences of this nature is the policy management component proposed for version 2 of the Court Filing specification (see *Policy Management* on page 28). Simply stated, that mechanism will allow courts to specify the queries and the data they will provide.

EFSPs should note that they will likely need to comply with two sets of rules for the information they can provide to their customers. One, the less restrictive set, will apply to those directly involved in an action as an attorney or party. The other, more restrictive, set will apply to everyone else. It will be the responsibility of the EFSP to execute due diligence in discerning who belongs to either set of customers. This is related to some extent to the *Electronic Signatures and Encryption* topic discussed on page 18.

An alternative to the approach proposed here (which we might characterize as the "predefined questions and answers" approach) would be to use a more flexible approach such as SQL (Structured Query Language) statements formulated by EFSPs and executed directly against a court's CMS database. Some early electronic filing projects do this. There are many arguments against this alternative, however, foremost among them being that: (1) application logic would be ignored and the results returned may be wrong or inconsistent with the court's interpretation of the data; (2) the names of tables (files) and attributes (fields) will vary from CMS to CMS, consequently SQL statements would need to be customized for each CMS and there would little or no saving of time or effort for EFSPSs when initiating

[8] See www.courtinfo.ca.gov/rules/2000/appendix/divistandard-84.htm#P2771_246061, *Access to Electronic Records, Standards of Judicial Administration Section 38.*

service to a court; and (3) in general, it would be a bad idea to allow EFSPs to formulate and submit any SQL statement they might desire, and it is impractical for courts to check or certify the intended results of every SQL statement submitted.

Another related concern to this specification involves the infrastructure a court might need to support this specification: for example, it is conceivable that the volume of queries received could affect the performance of the court's CMS. Assuming that the alternative of limiting or restricting electronic access to court records is unacceptable (doing so would seem to run counter to the intent of *Standards of Judicial Administration Sections 37 and 38)*, there then appears to be two general alternatives to addressing this potential problem: (1) increase the information technology infrastructure of the court as appropriate, or (2) outsource the activity of providing electronic access to court records. Both approaches have been used in California, and we are not proposing any restrictions to the course individual courts may take in this regard.

Court-Initiated Transactions

Purpose There are occasions when an event or an action taken by a court needs to be conveyed to one or more parties to a case. This specification addresses that need.

Proposal The EFM-to-CMS API discussed in *Case Management System API* on page 19 will include methods for a CMS to present a message and/or documents to an EFM, which the EFM would then be responsible for routing to the appropriate EFSP(s) and, ultimately, filers or parties.

Force Required.

Compliance, Timeframes Product compliance is expected within one year of release of a Query/Response specification by the Legal XML organization that includes a court-initiated transaction mechanism.

Discussion Current rules and the version 1 Legal XML Court Filing specification recognize the need for an acknowledgement to be returned to the filer (via the filer's EFSP) when a document is received at the court, and when it is accepted ("filed") or rejected. But there are court events that are not

contemporaneous with document filing that somehow need to be sent back to filers, such as the signing of an order or the rescheduling of a calendared event. Such court-initiated transactions could conceivably be conveyed using electronic mail, but this approach has three evident problems: (1) many court CMSs have no means of tracking the e-mail address of parties or attorneys (but the EFM application undoubtedly does); (2) such transactions should properly flow back through the filer's EFSP; and (3) such transactions should be in XML, so that data may be used by others.

Another alternative would involve filers (or their EFSPs) sending periodic queries to a court's CMS (using the mechanism discussed in *Interaction With Court Databases* on page 21) to see if any changes had been posted to the register of actions for a case (by way of example). This approach is a highly problematic solution, though, in that traffic and CMS workload would necessarily increase, and most such queries would produce no useful result.

CEFTS/2 Discussion The need for this capability was generally recognized at the CEFTS/2 conference, with most discussion focusing on policy ramifications. It should be understood that this specification is simply an enabling mechanism, that its mere existence does not constitute policy, or that its use would necessarily be construed as notice by the court to a party (that is addressed more thoroughly in *Electronic Service* on page 24).

Electronic Service and Notice

Purpose With the advent of electronic filings the prospect of electronic service arises. This specification addresses who is responsible for the service of documents on and provision of notice to parties to a case.

Proposal Courts can send notice to parties electronically, and they can send an electronic summons to a filer for conventional service on another party.

Force Optional, at the discretion of individual courts.

Compliance, Timeframes Product compliance for this optional capability is expected within one year of release of a Query/Response specification by the Legal XML organization that includes a court-initiated transaction mechanism (see *Interaction With Court Databases* on page 21, and *Court-Initiated Transactions* on page 23).

Discussion It has been observed that, when courts receive filings electronically, they can easily and at relatively little cost retransmit those documents on to the other parties to a case, thereby performing service on those parties. This presupposes, of course, that all parties can be served electronically, a condition that may not apply in most cases over the near term.

CCP 1010.6 allows a court to electronically transmit a summons to the filing party for conventional service on another party, and it allows electronic service on a party that agrees to accept service electronically (where such service could otherwise be conducted by mail, express mail, overnight delivery, or facsimile transmission). With this direction set, it seems clear that the use of electronic service will grow, and while technically feasible, this specification allows local discretion in court's providing that capability.

Technically, a court's CMS database or its EFM software will need to store indicators and addresses for parties who have opted for electronic service. Current law specifies that this designation must be made on a case by case basis. Again, such transactions should flow back through a filer's EFSP.

CEFTS/2 Discussion CEFTS/2 attendees agreed the role of courts with respect to service of process should not change from conventional practice until such time as legislation requires or allows such change. It remains, then, that a technical mechanism must exist for the reliable delivery of electronic notices and summonses to parties.

Payment Mechanisms

Purpose The purpose of this specification is to establish the basis on which filing fees, bonds, judgments, or other payments will be remitted electronically. It hopes to satisfy the objectives of:

- Simplifying financial accounting and the reconciliation of receipts;
- Avoiding the practice of bad debt collection for courts;
- Avoiding the need to obtain approvals from the Judicial Council for credit card acceptance and service fees as required under GC 6159.

Proposal By virtue of transmitting an electronic filing to a court, EFSPs will guarantee payment as appropriate to the court. EFSPs will make payments to courts

using an Electronic Funds Transfer (EFT) mechanism such as Automated Clearing House (ACH) transactions to an account designated by the respective court. EFSPs will also provide reconciliation reports for all transactions in an electronic format as designated by a court.

Force Required.

Compliance, Timeframes Upon implementation of new electronic filing services.

Discussion Both current law and the Legal XML Court Filing version 1 specification enable a court to accept credit card payments.[9] This specification, however, places the burden of processing and guaranteeing credit card payments on EFSPs rather than on courts on the grounds that doing so simplifies the electronic and business environments for courts. This makes bad debt collection and the repudiation of credit card transactions a matter for resolution by EFSPs, not courts.

The format of the reconciliation report required by this specification is not addressed other than that it should be electronic. Ideally, such data would be conveyed from EFSP to the court using XML, but practically speaking a spreadsheet format might be more useful for the typical court for some time into the future. We have left this to the discretion of individual courts, and will propose that the Legal XML organization consider establishing a specification for payment records.

CEFTS/2 Discussion Discussions at CEFTS/2 resulted in the following conclusions:

- Even though each Court Filing XML envelope contains payment information (in the *PaymentInformation* element) that a court could use for accounting and reconciliation processes, the reconciliation report concept should be retained.
- It was unnecessary to specify the frequency with which payments would be transmitted to the court, as that would likely be contractually specified.
- A mechanism to "undo" or revoke a filing and associated payment was not necessary, given that conventional procedures already exist

[9] As noted, GC 6159 requires courts to obtain approvals from the Judicial Council before doing so. Also, at the time this is drafted, question has been raised as to whether version 1 of the Court Filing specification contains all of the elements necessary for processing credit card or ACH payments.

to accommodate errors or payment collection problems EFSPs might have.

Communication Protocols

Purpose The effect of this standard is to establish the protocol(s) by which EFSP transmissions will be sent to courts' EFM applications. It's objectives are to:

- Provide an effective, efficient mechanism for communication;
- Provide a reasonably secure transmission method;
- Utilize a transmission method readily available to courts and EFSPs alike.

Proposal EFSP-to-EFM transactions should be performed using HTTPS, the secure hypertext transfer protocol.

Force Required.

Compliance, Timeframes Upon implementation of new electronic filing services.

Discussion The current web standard for this type of transmission since 1990, the secure hypertext transfer protocol (HTTPS) is a communications protocol designed to transfer encrypted information between computers over the World Wide Web. HTTPS is HTTP using a Secure Socket Layer (SSL), an encryption protocol invoked on a Web server that uses HTTPS. In order to offer secured communications using SSL, courts will need to obtain a digital certificate from a certificate authority.

Note that in its present incarnation this specification does not accept electronic mail as an acceptable protocol for submitting filings to a court. Note also that it relies entirely on the Internet as opposed to a private network of any kind. Finally, we solicit comment from EFSPs and EFM providers as to whether the certificate authority should be standardized statewide.

CEFTS/2 Discussion The prospect of using encrypted FTP for bulk transfers of filings was raised, but not accepted on the grounds that encryption raised potential complications and interoperability problems. In addition, it was determined that the need arose in the Filer-to-EFSP domain, which is outside the scope of this particular specification: EFSPs are free to use any protocol between themselves and their customers.

Concern was raised regarding the use of a standard (HTTPS) that may in time be superceded by more advanced technology. For instance, HTTP/1.1, the next generation of the HTTP protocol, is now in the Draft Standard stage at the IETF (Internet Engineering Task Force), a standards setting organization), one step away from becoming an Internet Standard. HTTPS will undoubtedly be adapted to use HTTP/1.1, or another secure protocol will be introduced by the IETF and/or W3C. Our specifications are not intended to preclude emerging standards, and will need to be revised from time to time for that very reason.

The possibility of allowing waivers for this specification, for instance use of a VPN (Virtual Private Network) was raised but not accepted on grounds that it would potentially compromise interoperability.

No strong opinions were expressed with regard to using a single digital certificate authority. While doing so would potentially simplify one aspect of electronic filing implementations, the experience of Utah where four certificate authorities are accepted suggests that this may not be a matter of technical significance. A wait-and-see approach seemed the most appropriate at this time.

Policy Management

Purpose This specification establishes a mechanism for automatic configuration of EFSP systems to reflect court electronic filing policies, preferences, and CMS parameters. It's objectives are to:

- Simplify the configuration process for each EFSP wishing to transmit electronic filings to a court;
- Accelerate the introduction of EFSPs and the acceptance of electronic filing in general;
- Establish a deterministic method to a potentially complex and problematic process.

Proposal Courts will express their policies, preferences, and CMS configuration parameters in XML in compliance with the Legal XML Organization's emerging *Court Policy XML* specification. EFSPs will interrogate the Court

Policy XML of a court via the court's (or CMS's) EFM application to determine what it can (or cannot) send to that court (see *Court URL Directory* on page 15). EFSPs will periodically check for changes to a court's Policy XML.

Force Required.

Compliance, Timeframes Product compliance is expected within one year of release of the Legal XML organization's Court Policy XML specification.

Discussion An operating principal of the Legal XML organization in formulating the Court Filing specification has been to be "over-inclusive and optional". This has resulted in an extremely flexible specification in terms of satisfying the many and diverse requirements of courts throughout the nation (and in other nations). But with that flexibility comes the problem of determining just what each court will or will not accept in the way of a Legal XML-compliant electronic filing. It was recognized early on by Legal XML participants that some variety of automatic mechanism was needed for the purpose of tailoring EFSPs' systems to talk to court's EFM systems, and that XML could be the language by which that conversation was carried out. Court Policy XML is understood to be a component of the version 2 release of the Legal XML Court Filing specification, and a white paper is pending. Candidate topics should include:

- How payment may be made (see *Payment Mechanisms* on page 25);
- The court's fee schedule;
- CMS data configuration, including data types, lengths, and validation;
- Valid values for CMS fields such as document types, party roles, case types, etc. (see also *Code Sets and Translations* on page 30);
- The XML elements a court will accept as required or optional;
- Whether a court will accept an initiating filing for a case, or subsequent filings, or both;
- Whether a court will accept a URL as a document;
- Whether a court will accept a document requiring fees;
- Whether a court will accept sealed documents;
- How many filings can be in an XML envelope;

- Allowable file formats for documents (see *Document Formats* on page 16);
- The maximum size of a filing;
- Query/Response parameters for queries supported, constraints, data elements available, and transaction quotas (see *Interaction With Court Databases* on page 21 and *Court-Initiated Transactions* on page 23);
- Whether the court will perform electronic service or notice (see *Electronic Service* on page 24);
- Versions of the Legal XML Court Filing specification that are accepted by the court (see *Transmission Envelope* on page 14).
- Retrieval of a canonical list for translating data into values acceptable to a CMS (see *Code Sets and Translations* on page 30).

The alternative to a policy management mechanism for automatic configuration is the slow, costly, pain staking exercise of tailoring every EFSP and EFM application to each and every court CMS in the state.

CEFTS/2 Discussion The prospect of having an XML file with the information described above freely available on the Internet seemed to some to be an invitation for mischief. It has been suggested in other forums that the Court Policy XML file would be available via FTP, but the resolution on the CEFTS/2 attendees was that it should be accessible only via the EFM, where further protections were available by virtue of the *Communication Protocols* specification (see page 27) and, probably, logic in the EFM application.

Code Sets and Translations

Purpose This specification would establish, to the extent feasible, a standard set of tables for use in mapping the translation of data elements into values acceptable to individual CMSs. It's objectives are to:

- Simplify the process of interfacing EFSPs and EFMs to CMSs;
- Take a first step toward uniform statewide code tables.

Proposal The AOC will adopt canonical code tables derived from (1) its model case management system project, or (2) produced by vendor consortium. This

product will become a standard mechanism for mapping data elements between electronic filing systems and case management systems.

Force Optional.

Compliance, Timeframes The AOC will publish a first version of standardized code tables within calendar 2001.

Discussion To understand one of the barriers to statewide electronic filing, consider the problem introduced by the uniqueness of each of the several hundred case management systems in the state: they are all table-based, and they all use different codes to represent entries in those tables. EFSPs, on the other hand, will use their own sets of “codes”, probably customer-oriented values, for data elements such as "case type" or "document type" and the many other data elements needed by a CMS to initiate a case or process a subsequent filing.

Translation has to occur somewhere, and in our model we assume it will probably happen in the EFM (though technically it could be performed by the EFSP application). Assume a world of 10 EFSPs and 200 CMSs. That’s 2,000 mapping exercises between EFSPs and courts, each one conducted individually by court and EFSP staff. If there are 35 such tables, and only an hour is needed on average to perform the mapping, that's 70,000 hours (just over 35 person-years) to get every EFSP application talking to every CMS.

If we could develop a “Rosetta Stone” of standardized codes, as this specification proposes, we could simplify the problem to 210 mapping exercises (10 EFSPs to the “Rosetta codes” plus 200 CMSs to the “Rosetta codes”). Court staff would map their CMS codes to the AOC's standard tables one time, and EFSPs would use that mapping to present the correct value to the court's CMS.

It is also possible that this approach would accommodate automatic configuration of EFSP or EFM applications via the proposed policy management mechanism (see *Policy Management* on page 28).

CEFTS/2 Discussion The potential value of this initiative was generally recognized by CEFTS/2 attendees, though some professional skepticism was expressed given the complexity of the task and the observer's experience with courts. A CMS vendor suggested that community might be able to produce the canonical lists called for by this specification, and that alternative has been added.

Compliance and Certification

Purpose This specification would establish: a framework for classifying the functionality of EFM applications, CMS APIs, and related software capabilities as they emerge; and a means for certifying that products satisfy specified levels of functionality. Its objectives are to:

- Ensure interoperability between competing EFSP, EFM, and CMS applications;
- Provide a means for courts to readily evaluate the capabilities and performance of alternative products;
- Provide a mechanism for signaling when new software capabilities will need to be added or existing capabilities modified.

Proposal To the extent that the Legal XML organization establishes a compliance framework and certification processes for products stated to be in compliance with Legal XML specifications, California will adopt that organization's approach. California will establish its own certification process for exclusive or extended capabilities and capabilities not otherwise addressed by the Legal XML organization.

Force Recommended.

Compliance, Timeframes Within one year of the establishment of compliance frameworks and certification authorities.

Discussion EFMs will likely be complex and, at least for the next few years, rapidly evolving applications. It is possible, for instance, that a given EFM product will support some but not all possible capabilities defined or possible for an EFM. It is similarly possible that an EFM will support a particular capability, but only some aspects of that capability. And finally, it's conceivable that an EFM application might have components or capabilities that are unique to it and afford more advanced functionality. For the sakes of elucidation and certification, there must be some way of classifying what a particular instance or version of an EFM can do. Once that framework is established, there must be some way of certifying that a given product does (or does not) perform as expected, and that it will interoperate with other electronic filing applications and CMSs as appropriate.

A white paper on Legal XML Certification will be issued as an Unofficial Note shortly. This is expected to be the starting point for determining what and how the Legal XML organization will handle compliance certification. In the event that some critical capabilities are not addressed by the Legal XML organization's compliance certification process, it may be incumbent on California to establish its own process. The task of EFM certification is non-trivial, and some obvious alternatives for compliance certification include:

- by the California AOC;
- by an independent certification entity or entities authorized by the AOC;
- by the court which first implements a given version of software from a provider, perhaps with assistance arranged by the AOC;
- by a certification service provided or endorsed by Legal XML.

Suggestion or comment is invited.

CEFTS/2 Discussion This specification deals with software product compliance with technical specifications. While nothing proposed here appears to be controversial, there was considerable discussion at CEFTS/2 regarding EFSP certification. This is discussed further in *Registration of EFPSs* under *Recommendations for Rules of Court* on page 34.

Recommendations for Rules of Court

The focus of this document is expressly on technical standards for electronic filing. The formulation of rules of court is not within its scope. Nonetheless, it is clear that rules should reflect or reinforce technical approaches where to do so benefits the proliferation of electronic filing services among courts, practitioners, and the public. In this respect candidate topics for rules are discussed below.

Role and Obligation of EFSPs

For the foreseeable future, individual courts will contract with individual EFSPs for the provision of electronic filing services. EFSPs will collect and forward fees and other monies to courts (see *Payment Mechanisms* on page 25), they will be expected to vouch for their customers (see *Electronic Signatures and Encryption* on page 18), they will be expected to forward items sent by the court (see *Court-Initiated Transactions* on page 23), and they will be expected to not abuse the privilege of accessing a court's CMS database (see *Interaction With Court Databases* on page 21). These matters could be handled contractually for each court-EFSP relationship (for 58 courts and 10 EFSPs that would result in 580 contracts), or they could be addressed in a universal way by Rule of Court that would be referenced in such contracts (consistent with CCP 1010.6).

Registration of EFPSs

The topic of EFSP certification was raised at the CEFTS/2 conference, with the consensus being that "registration" was a more appropriate term for any process that is likely to be adopted. It was emphasized that:

- The registration process should not be onerous to avoid imposing a barrier to entry of competitive services;
- The need for bonding is not evident, and since bonds potentially pose a formidable barrier to entry for EFSPs, should apply on a statewide basis rather than a court-by-court basis if required at all;
- Legislation may be required for the registrar if one is deemed necessary;
- When competition is present EFSPs should be free to set prices and business terms without being regulated as "utilities".

Enforcement of Standards

We've posited above that compliance to specifications is a critical component for achieving statewide interoperability of electronic filing services. We could rely upon market forces, the individual procurement decisions of courts, and/or the budget approval process to enforce the development and implementation of standards-compliant products. In some instances a policy initiative such as the AOC's case management system certification program can be used to encourage compliance with technical standards (see *Case Management System API* on page 19). Alternatively, technical standards can be promulgated by Rule of Court, by a Standard of Judicial Administration, or by a specification administered by the Court Technology Advisory Committee at the direction of the Judicial Council. Specific enforcement mechanisms will be addressed in future efforts.

Periodic Revision of Technical Standards

It has been noted in several of the proposed technical specifications that future revision or refinement of a specification will be appropriate (if not unavoidable). That raises the issue of formalizing the process by which specifications are introduced, retired, or revised over time. CEFTS project members suggested an approach similar to that used by the W3C or IETF for this purpose. This would likely require designation by the Judicial Council of responsibilities for administering the standards-setting process.

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